

## REMARKS

Amendments to the claims have been made to respond to the issues and concerns raised in the Office Action and to clarify aspects in the claims. Claims 148-154 have been newly added. In light of the previously and currently cancelled claims, it is believed that no additional claim fees are needed.

### 35 U.S.C. §112 Concerns

Claims 1 and 150 have been amended to clarify the separation of Y chromosome bearing sperm cells from X chromosome bearing sperm cells as well as clarifying abbreviations for sperm extenders.

Support for all clarification amendments can be found in the specification. The Assignee believes that the concerns under 35 U.S.C. § 112 second paragraph are moot in view of the above clarifications.

### 35 U.S.C. §§ 102 and 103 Concerns

The Office has expressed 35 U.S.C. §§ 102 and 103 concerns to the claims. In light of the newly added amendments to the claims, Assignee believes that the claims are novel and non-obvious over the cited references. Specifically, none of the cited references specify a shorter staining time for semen. A significant problem with conventional procedures for separation of sperm cells into subpopulations can be the duration of time sperm cells are incubated in stain, such as Hoechst 33342. It may be too long for certain species of mammals. For example, equine sperm cells incubated in Hoechst 33342 for one hour may exhibit substantial loss of motility or fertility. As may be shown in the specification and figures, specifically Figure 4, it can be understood that decreasing the incubation period to stain sperm cells from the conventional period of 60 minutes to a 30 minute period can decrease percentage of dead sperm cells, and increase resolution of X-chromosome bearing sperm cells from Y-chromosome bearing sperm

cells. Thus, it is novel and non-obvious for one of ordinary skill in the art to achieve the instantly claimed steps based on the references.

It is respectfully submitted that independent claim 1 and all the claims made ultimately dependent thereon are novel and non-obvious. See 37 C.F.R. §1.75(c). Should the office require further explanation, the Assignee stands ready to supplement the above remarks if necessary.

#### Additional Information

The amendments submitted herein should be understood to be made as a practicality only, and should not to be construed as creating any situation of file wrapper estoppel or the like as all rights are expressly reserved and may be pursued in this or other applications, such as divisionals, continuations, or continuations-in-part if desired. Relatedly, it should be understood that the amendments made herein are made for tangential issues of clarity and as a matter of the Office's convenience or expedience only. The amendments should not be interpreted as an action that in any way surrenders a particular equivalency, surrenders any right to patent coverage, or otherwise limits any rights which the Assignee may now or hereafter assert. It should be understood that, unless and to the extent deemed broadened by this amendment, and even as amended, the Assignee expressly reserves all rights, including but not limited to: all rights to maintain the scope of literal coverage with respect to any element as may have existed under the language previously presented, all rights to maintain the scope of equivalency coverage as may have existed under the language previously presented, and all rights to re-present the prior language at any time in this or any subsequent application. To the extent currently foreseeable, no change or reduction in direct or equivalency coverage is believed to exist, and no change or reduction in direct or equivalency coverage is intended through the presentation of this amendment.

Further, the office and any third persons interested in potential scope of this or subsequent applications should understand that broader claims may be presented at a later

date in this or a continuation in spite of any preliminary amendments, other amendments, claim language, or arguments presented, thus there is not intention to disclaim or surrender any potential subject matter. It should be understood that such broader claims may require that any relevant prior art that may have been considered may need to be re-visited since it is possible that to the extent any amendments, claim language, or arguments presented in this application are considered as made to avoid such prior art, such reasons may be eliminated by later presented claims or the like. Both the examiner and any person otherwise interested in existing or later coverage or considering the possibility of an indication of disclaimer or surrender of potential coverage, should be aware that no such surrender or disclaimer is intended or exists in this application. Limitations such as arose in *Hakim v. Cannon Avent Group, PLC*, 479 F.3d 1313 (Fed. Cir 2007), or the like are expressly not intended in this or any subsequent matter related.

#### Conclusion

The Assignee, having addressed each of the concerns raised in the Office Action, respectfully requests reconsideration and withdrawal of the rejections and objections to the application. Allowance of the claims is requested at the Office's earliest convenience.

Dated this 12<sup>th</sup> day of January, 2009.

Respectfully Submitted,  
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